

May 1938

TECHNOLOGY REVIEW

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THE TABULAR VIEW

EACH year a committee of the American Alumni Council, a body made up of alumni officers of American colleges, appraises magazines that are published by these colleges. The Review has been encouraged many times by awards received from this group, and this year it again was listed among those magazines judged to have done well some type of journalistic job. The citation read: "The American Alumni Council awards first place to The Technology Review for the best use of type, heads, and captions in the magazine awards contest." ¶ It is worthy of note that the magazines published at scientific and engineering institutions rank high among graduate magazines. The journals published by Case and Lehigh, for example, are executed with great professional competence. While many liberal arts colleges publish first-rate magazines, it is nevertheless striking that the technical magazines have progressed so far in appearance and contents — and in advertising volume.

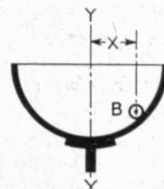
A STUDENT of mountain climbing and possessor of an extensive collection of literature on the subject, JOHN E. BURCHARD, '23 (page 307), writes with enthusiasm and understanding of the techniques and motives of mountain climbing. During those interludes when he is not practicing his profession as a housing engineer or carrying on such avocational work as the Technology Alumni Fund and Alumni Day, he gets in some climbing of his own. ¶ DR. HARRY R. DESILVA (page 309) is a member of the staff of the Street Traffic Research Bureau at Harvard University and has been associated with the development of the apparatus and methods he describes for testing driving competence. ¶ FREDERICK G. FASSETT, JR., as recorded on page 320, has just been elevated to the position of associate professor of English at the Institute. His understanding of the social significance of science is steadily deepening, as he continues the various papers he has written for The Review on this subject (page 312). Readers will doubtless recall his article, "Science and the State," which appeared in the April, 1937, Review, and also the article, "Science and American Literature" (February, 1937), of which Professor Fassett was coauthor. ¶ GEORGE R. HARRISON is director of applied physics and of the research laboratory of experimental physics at M.I.T. His article on the place of physics in modern life (page 315) is drawn from a book now being written by him on the practical applications of physics. In our first issue this fall (that dated November), we were privileged to present another chapter from this book, "Tomorrow's Telephones." Contributions from Professor Harrison in former years have included the articles, "Molecular Planning" (March, 1936) and "Hard-Headed Rainbow Chasers" (December, 1933). The Lowell Lectures this year in Boston, one of the most distinguished lecture series in America, included a group of lectures by Professor Harrison on the application of physics in modern life.

No. 7

Just for Fun!

A CHALLENGE TO YOUR INGENUITY

HERE is a curiosity from the field of speed indication. — A hemispherical bowl with a radius of 1 foot 1 inch is mounted on a central vertical shaft YY. A one-pound ball B with a radius of 1 inch is free to roll inside the bowl.



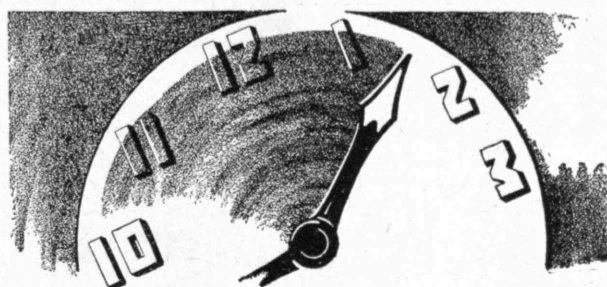
On what part of the bowl's surface will the ball tend to ride (i.e., what will be the value of x) if the bowl is spun at 50 R.P.M. about the YY axis? How do you explain this peculiar result? Show that x will increase to about 7 inches at a speed of 60 R.P.M.

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MAIL RETURNS

LETTERS AND PICTURES FROM REVIEW READERS

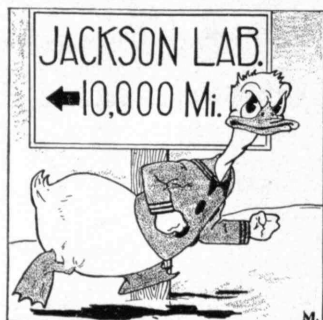
The Duck That Got Wet

FROM C. R. CARYL:

We were interested to note from the March 14 issue of *Time* that the "M.I.T. Review" of that month had carried a story about a duck that could not swim in water to which a wetting agent had been added. Since I am the "chemist" who made the duck sink (but did not roast him afterwards), you can understand my interest in obtaining a copy of your Review. . . .

*American Cyanamid and Chemical Corporation
Pittsburgh, Pa.*

The experiment described by *The Review* was performed in the Jackson Laboratory of the Du Pont Company and informally reported on November 17 in a local publication, under the heading "The Dye-Jest." We do not know whether Mr.



Caryl's experiment was prior to this, but we do have it on good authority that the Du Pont duck (whose subconscious portrait is reproduced adjacently) was eventually roasted, as *The Review* reported.

Said the Dye-Jester: "It seems that one member of the family *Anas Boschas* ran afoul of a group of prominent chemists and, for

experimental purposes, was placed in a barrel of water to which had been added one of our wetting-out agents. For a moment or two, the duck was in his glory, then he noticed a strange phenomenon — His feathers, usually water-repellent because of the film of oil which covers them, were becoming saturated! In a minute and a half he was as soggy as a dunked doughnut and the look of surprise on his face was akin to a Walt Disney caricature. Giving vent to a quack of alarm, the duck found himself forced to paddle vigorously to keep afloat. In eleven minutes he sank, only to be rescued and freed. With an angry wiggle of his tail feathers he ambled away from his inquisitors."

Stairways in Syria

FROM EDWARD A. ABDUN-NUR, '24:

I was interested in the caption of your picture of the cantilever stairway on page 263 of the April issue of *The Review*. Practically all stairways in Syria are of this type. Of course labor is cheap there. I have built many of them there — even circular ones cantilevered either from an outside stairwell wall or from a central pipe support. Over in that country they are made usually either of reinforced concrete with a terrazo covering or from slabs of limestone. I am sorry that when I was building them I did not feel it of enough interest (because they were so common, to take any pictures.

Billings, Mont.

Bored to Great Depths

FROM JOHN SLOAT, '33:

Last year, as consulting geophysicist for Union Oil Company of California, it was my good fortune to map by modern geophysical methods what has since become the deepest producing oil field in the world, at Rio Bravo, Calif. At present there are ten of the world's most expensive (that's California for you) oil derricks exploring this superdeep structure. The oil is of high gravity — such that the original well, costing \$260,000, paid for itself in a few months after completion. This is a clear-cut case of the success of modern geophysics.

I notice that someone is asking for an article on geophysics. Just wondered if you would be interested in the story of this discovery for *The Review*. I could furnish pictures, graphs, explanations of methods — your readers would be bored to great depths. . . .
Bakersfield, Calif.

Cover Club Communication

FROM GEORGE A. MAKAROFF, '26:



Many thanks for the extra copies and words of encouragement. Will try to make the cover again, as soon as I manage to print a few "successes" on 8 x 10 glossy. However, my photographic ego is getting the better of me, and I just can't resist mailing you my own favorite — "Night Under the Viaduct." (Note: Naturally it's the sun. Also, for some esthetic reason, I have reversed the negative. . . .)
New York, N. Y.

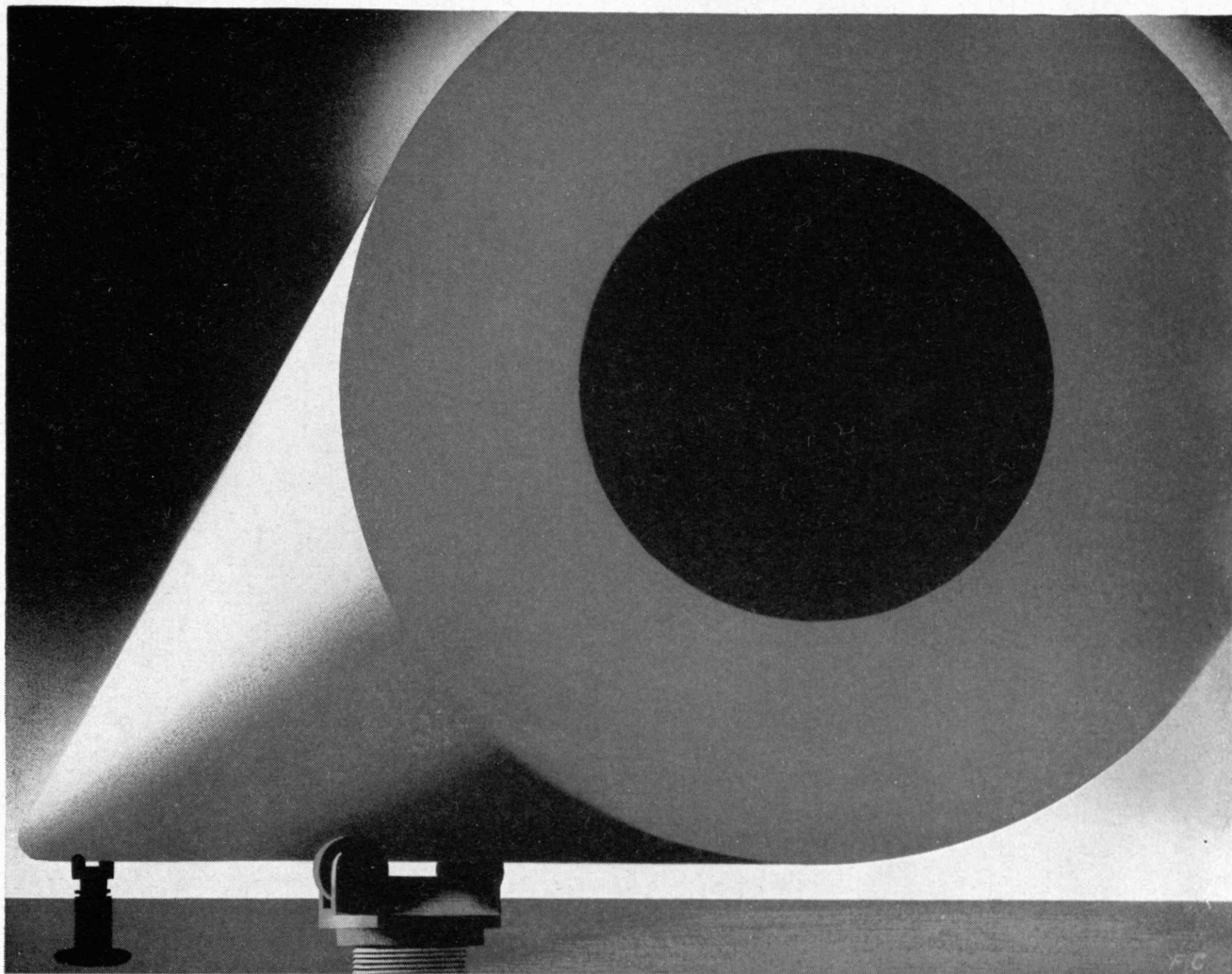
From Alaska

FROM RAY J. BARBER, '06:



President Charles E. Bunnell, pinning the Congressional Medal on Dr. Bramhall, '27, while Dean Barber, '06 (right), watches

Ervin Hicks Bramhall, S.B., S.M., Ph.D., '27, VI, has just received a Congressional Medal for distinguished service [for his part in the exploration of the Antarctic with Rear Admiral Byrd in 1933 and 1934]. The medal was awarded by act of Congress some months ago, but the presentation was made . . . at the University of Alaska, where Bramhall is professor of physics and head of the department of general science.
University of Alaska



HUGE—YET UNIFORM IN PHYSICAL PROPERTIES

NECESSITY hastens many a discovery. When deep drilling in the oil industry created the need of extra-heavy, extra-durable drill collars, their service requirements and economical construction presented some new machine-shop problems. Among them was the finding of a steel which could be heat treated in long, massive chunks (sometimes 8 tons and 40 to 50 feet long) to produce uniform high physical properties and yet be readily machinable.

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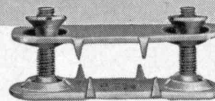
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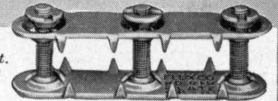
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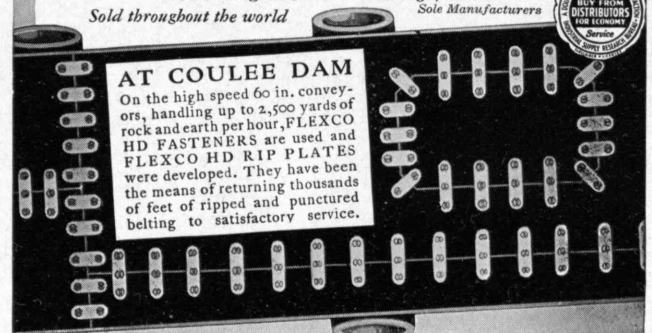
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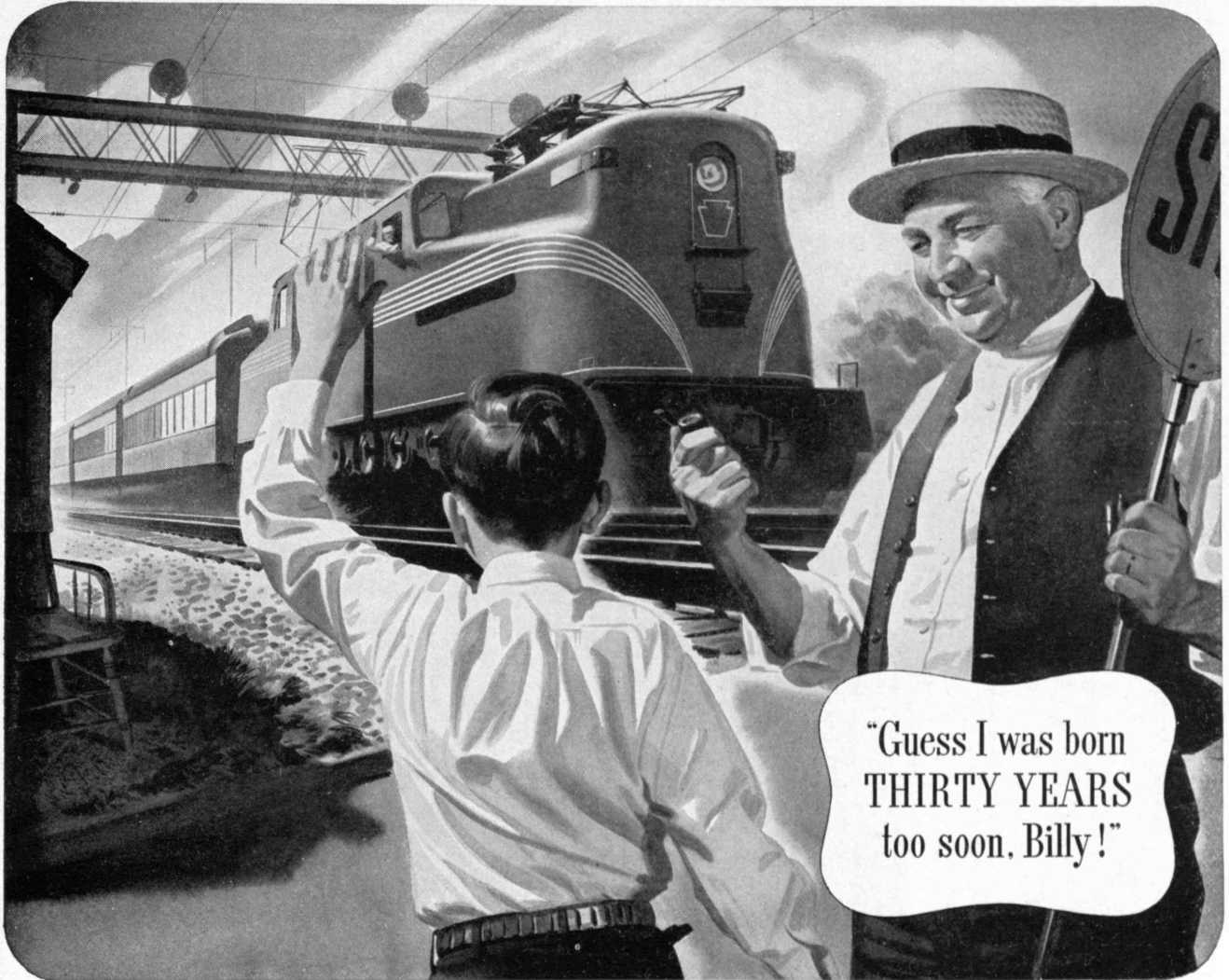
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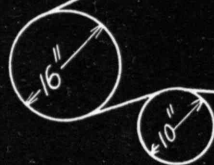
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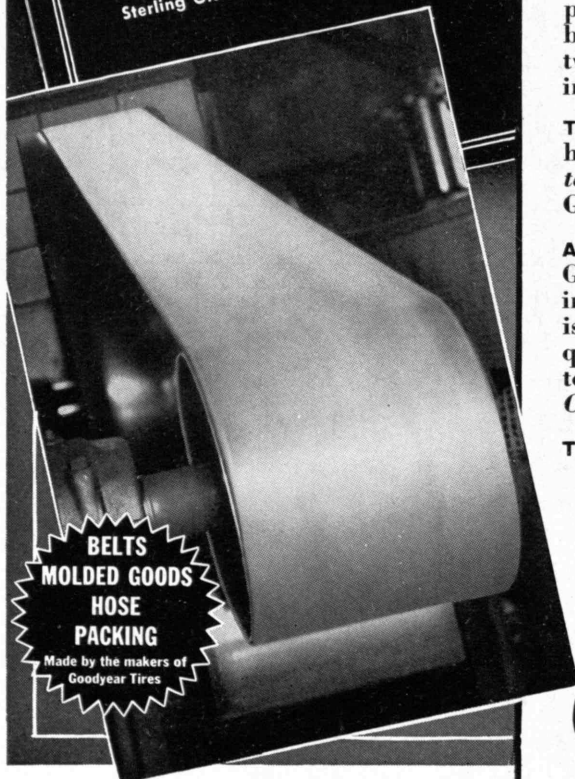
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Philip D. Gendreau

THE TECHNOLOGY REVIEW

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EDITED AT THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

VOL. 40, NO. 7

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